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SBND, ICARUS and POMS Update

Anna Mazzacane

February 14, 2018

Overview

- Last time I did an overview of POMS and showed some of the many features implemented in POMS
- Since then POMS has implemented a workflow example that doesn't use project.py, but allows to go through all the production steps using the FIFE toolkit.
- SBND and ICARUS can tune this workflow in order to meet the experiment needs for MC production
- In this slides, I will show:
 - How to configure POMS
 - Workflow example for SBND
 - Issues found and solved – NOT depending on POMS
 - Existing documentation
- Q&A

How To Configure POMS

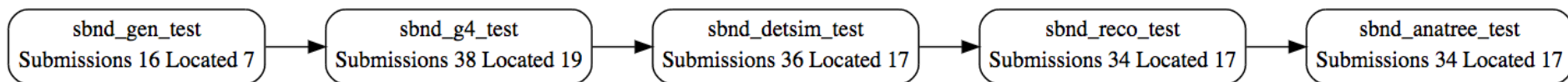
- Last time I mentioned there are two configuration models to interface to POMS:
 - Through a submission script that takes all configurations needed for the job submission and data handling
 - Through a configuration file that handles all info needed for the job submission and data handling
- Both are passed to POMS through the web interface.
- Future plans will allow users to also interface to POMS client and launch jobs through a command line and have POMS tracking, debugging and monitoring them.

Highly recommended

How To Configure POMS – Step by Step

- I will show step by step how to configure POMS for a general MC production workflow using:
 - A configuration file to interface with POMS
- It's a two steps configuration:
 - Edit the configuration file
 - Create the POMS Campaign stages

➤ Example of SBND worflow tested:



How To Configure POMS – step 1

1. Edit the configuration file:

➤ **Example:** `/sbnd/app/home/poms_test/cfg/sbnd_launch.cfg`

Example of Configuration File

demo config

[global]

```
group          = sbnd
experiment     = sbnd
wrapper        = file:///\$\(FIFE\_UTILS\_DIR\)/libexec/fife\_wrap
version        = v06_48_00_MCC
quals          = e14:prof
fclfile        = override_me.
fclbasename=gen
```

[env_pass]

```
IFDH_DEBUG      = 1
SAM_EXPERIMENT  = %(experiment)s
SAM_GROUP       = %(group)s
SAM_STATION     = %(experiment)s
```

[submit]

```
G              = %(group)s
N              = 5
#dataset       = %(dataset)s -- will override this on processing stages
resource-provides = usage_model=OPPORTUNISTIC,DEDICATED,OFFSITE
generate-email-summary = True
expected-lifetime = 3h
#disk          = 10GB
memory         = 2000MB
```

Example of Configuration File (cont'd)

[job_setup]

```
debug      = True
find_setups = True
source_1   = /cvmfs/sbnd.opensciencegrid.org/products/sbnd/setup_sbnd.sh
setup_1     = sbndcode %(version)s -q %(quals)s
#multifile  = True -- may override this on processing stages
#getconfig  = False
#ifdh_art   = False
```

[sam_consumer]

```
limit      = 1
appvers    = %(version)s
```

[executable]

```
name       = lar
arg_1      = -c
arg_2      = %(fclfile)s
arg_3      = -o
arg_4      = %(basename)s.root
arg_5      = -s
#arg_6     = input_filename -- will be added by multifile loop...
```

[job_output]

```
addoutput   = %(basename)s.root
rename      = unique
dest        = /pnfs/sbnd/scratch/sbndpro/poms_test/
declare_metadata = True
metadata_extractor=sam_metadata_dumper
# add_to_dataset = _poms_task -- override this on on the gen stage(s)
add_location = True
```

How To Configure POMS – step 2

1. Create POMS Campaign Stages:

- **Examples: sbnd_gen_test, sbnd_g4_test, sbnd_detsim_test, sbnd_reco_test, sbnd_anatree_test**

Create POMS Campaign Stages – Login

1. Log into POMS

<https://pomsgpvm01.fnal.gov/poms/>



Please enter your SERVICES user name and password.

Username

Password

Sign On

Fermilab [Disclaimer](#)

- Use services account to login
- Need an experiment affiliation and computing permissions to submit jobs – **Ask your experiment production coordinator**

Create POMS Campaign Stages – Home

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Jobs

Dashboard ?

See everything up and running in real time

Services

Job launches: allowed

fifemon_DCache (0/2) ✓

fifemon_FifeBatch (0/2) ✓

fifemon_SAM (0/4) ✓

fndca_DCache (5/13) ✗

Key:

Good Component (0/total) ✓

Warn Component (num_failed/total) ⚠

Failed Component (num_failed/total) ✗

Unknown Component (0/total) ⓘ

Anna Mazzacane

sbnd

production

Create POMS Campaign Stages – Compose

Screenshot of the POMS Dashboard interface.

Dashboard ?
See everything up and running in real time


Services

Job launches: allowed ▶ Allow ■ Hold

▶ fifemon_DCache (0/2) ✓
▶ fifemon_FifeBatch (0/2) ✓
▶ fifemon_SAM (0/4) ✓
▶ fndca_DCache (5/13) ✕

Key:

Good Component (0/total) ✓	Warn Component (num_failed/total) ⚠	Failed Component (num_failed/total) ✕	Unknown Component (0/total) ?
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Jobs 

- All (La...
- Failed... and Campaign Stage Name (Last Day)
- Failed_By Exit Code and Campaign Stage Name (Last Week)
- Failed_By Exit Code and Node Name (Last Day)
- Failed_By Exit Code and CPU Type (Last Day)

Create POMS Campaign Stages – Compose

Campaign Stages ?

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sbnd production

☒ Active ☐ Inactive ☐ All

	Name ?	Active ?	VO Role ?	Software Version ?	Dataset ?	Split Type ?	Completion Type ?	Completion Percent ?	Parameter Overrides ?
	sbnd_gen_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml", "prodgenie_nu_singleinteract
	dev_sbnd_mcc_gen_test	True	Production	v06_48_00_MCC	None	None	complete	100	[{"Oglobal.fcfile=", "prodgenie_nu_sing
	sbnd_reco_test	True	Production	v06_48_00_MCC	from_parent	None	complete	95	[{"Oglobal.fcfile=", "standard_reco_sbr
	sbnd_detsim_test	True	Production	v06_48_00_MCC	from_parent	None	complete	95	[{"Oglobal.fcfile=", "standard_detsim_s
	sbnd_anatree_test	True	Production	v06_48_00_MCC	from_parent	None	complete	95	[{"Oglobal.fcfile=", "standard_anatree
	sbnd_mcc_gen_test	True	Production	v06_48_00_MCC	None	None	complete	100	[{"Oglobal.fcfile=", "prodgenie_nu_sing
	sbnd_g4_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml", "prodgenie_nu_singleinteract
	sbnd_detsim_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml", "prodgenie_nu_singleinteract
	sbnd_anatree_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml", "prodgenie_nu_singleinteract
	sbnd_reco_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml", "prodgenie_nu_singleinteract
	sbnd_gen_test	True	Production	v06_48_00_MCC	None	None	complete	100	[{"Oglobal.fcfile=", "prodgenie_nu_sing
	sbnd_g4_test	True	Production	v06_48_00_MCC	poms_depends_41209_1	None	complete	95	[{"Oglobal.fcfile=", "standard_g4_sbnd

Add

➤ You can Add, Edit, Clone and Delete

Create POMS Campaign Stages – Clone

https://pomsgpvm01.fnal.gov/ x Anna

Secure | https://pomsgpvm01.fnal.gov/poms/campaign_edit

Apps NCIS Unità Anticrimi... Colloquium "From P... Fermilab CASA Login Buddismo Giornali Auto Ricette Salute Film Tools CorsiOnLine Marco Lavoro You Tube Viaggi Assicurazioni on line... Other Bookmarks

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Compose Campaign Stages

Jobs

All (Last Day)

Failed_By Exit Code and Campaign Stage Name (Last Day)

Failed_By Exit Code and Campaign Stage Name (Last Week)

Failed_By Exit Code and Node Name (Last Day)





































Failed_By Exit Code and CPU Type (Last Day)

Campaign Stages ?

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sbnd production

☒ Active ☐ Inactive ☐ All

	Name ?	Active ?	VO Role ?	Software Version ?	Dataset ?	Split Type ?	Completion Type ?	Completion Percent ?	Parameter Overrides ?
  	sbnd_gen_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml ","prodgenie_nu_singleinteract
  	dev_sbnd_mcc_gen_test	True	Production	v06_48_00_MCC	None	None	complete	100	[{"Oglobal.fcfile=","prodgenie_nu_sing
  	sbnd_reco_test	True	Production	v06_48_00_MCC	from_parent	None	complete	95	[{"Oglobal.fcfile=","standard_reco_sbr
  	sbnd_detsim_test	True	Production	v06_48_00_MCC	from_parent	None	complete	95	[{"Oglobal.fcfile=","standard_detsim_s
  	sbnd_anatree_test	True	Production	v06_48_00_MCC	from_parent	None	complete	95	[{"Oglobal.fcfile=","standard_anatree.
  	sbnd_mcc_gen_test	True	Production	v06_48_00_MCC	None	None	complete	100	[{"Oglobal.fcfile=","prodgenie_nu_sing
  	sbnd_g4_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml ","prodgenie_nu_singleinteract
  	sbnd_detsim_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml ","prodgenie_nu_singleinteract
  	sbnd_anatree_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml ","prodgenie_nu_singleinteract
  	sbnd_reco_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml ","prodgenie_nu_singleinteract
  	sbnd_gen_test	True	Production	v06_48_00_MCC	None	None	complete	100	[{"Oglobal.fcfile=","prodgenie_nu_sing
  	sbnd_g4_test	True	Production	v06_48_00_MCC	poms_depends_41209_1	None	complete	95	[{"Oglobal.fcfile=","standard_g4_sbnd

click

Create POMS Campaign Stages – Clone

- Change the Name
- Overrides Parameter of the configuration file (if needed)
- Create a dependency (for example, g4 stage depends on gen stage)
- Choose the Launch Template and Job Type from the drop down menu
- Click Clone

Campaign Stage Editor (sbnd)

Name ?	VO Role ?	State ?	Exp. Software Version ?
CLONE OF: sbnd_	Production	Active	v06_48_00_MCC

Dataset ?	Dataset Split Type ?
None	None

Completion Type ?	Completion % ?
Complete	100

Parameter Overrides ?

```
[{"-Oglobal.fcfile=", "prodgenie_nu_singleinteraction_cryostat_gsimple-config-v1.fc"}, {"-Osubmit.N=", "10"}, {"-Oexecutable.arg_5=", "n15"}]
```

Depends On ?

```
[{"campaigns": [], "file_patterns": []}]
```

LAUNCH TEMPLATE

Launch Template ?

sbnd_launch_test_1

Host ?	Account ?
sbndgpvm01.fnal.gov	sbndpro

Setup ?

```
export X509_USER_PROXY=/opt/sbndpro/sbndpro.Production.proxy;  
setup fife_utils v3_2_0, poms_client , poms_jobsub_wrapper
```

JOB TYPE

Job Type ?

sbnd_gen_fife_launch_test

Input Files/Job ?	Output Files/Job ?
0	0

Launch Script ?	Definition Parameters ?
fife_launch -c /sbnd/app/home/poms_test/cfg/sbnd_launch.cf g	-Oexecutable.arg_5=, Ojob_output.add_to_dataset=_poms_task, Oglobal.fcfile=prodgenie_nu_singleinteracti on_cryostat_gsimple-config-v1.fc

Cancel Clone



Create POMS Campaign Stages – Run



https://pomsgpvm01.fnal.gov/ x Anna

Secure | https://pomsgpvm01.fnal.gov/poms/campaign_edit

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Failed_By Exit Code and Campaign Stage Name (Last Week)

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Failed_By Exit Code and CPU Type (Last Day)

Campaign Stages ?

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sbnd production

☒ Active ☐ Inactive ☐ All

	Name ?	Active ?	VO Role ?	Software Version ?	Dataset ?	Split Type ?	Completion Type ?	Completion Percent ?	Parameter Overrides ?
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	sbnd_detsim_test	True	Production	v06_48_00_MCC	from_parent	None	complete	95	[{"Oglobal.fcfile=", "standard_detsim_s
	sbnd_anatree_test	True	Production	v06_48_00_MCC	from_parent	None	complete	95	[{"Oglobal.fcfile=", "standard_anatree.
	sbnd_mcc_gen_test	True	Production	v06_48_00_MCC	None	None	complete	100	[{"Oglobal.fcfile=", "prodgenie_nu_sing
	sbnd_g4_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml", "prodgenie_nu_singleinteract
	sbnd_detsim_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml", "prodgenie_nu_singleinteract
	sbnd_anatree_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml", "prodgenie_nu_singleinteract
	sbnd_reco_poms_test2	True	Production	v06_48_00_MCC	None	None	complete	100	[{"-xml", "prodgenie_nu_singleinteract
	sbnd_gen_test	True	Production	v06_48_00_MCC	None	None	complete	100	[{"Oglobal.fcfile=", "prodgenie_nu_sing
	sbnd_g4_test	True	Production	v06_48_00_MCC	poms_depends_41209_1	None	complete	95	[{"Oglobal.fcfile=", "standard_g4_sbnd

Add

Create POMS Campaign Stages – Run

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Colloquium "From P...

Fermilab

CASA

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Buddismo

Giornali

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Failed_By Exit Code and CPU Type(Last Day)

https://pomsgpvm01.fnal.gov/ x

Secure https://pomsgpvm01.fnal.gov/poms/show_campaigns

Anna

Campaign Stages ?

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sbnd production

Mark Campaigns Active/Inactive

Tag/Untag Campaigns

Hold/Release Campaign Submission

Show ALL Campaigns Statistics

Select All	Name	Active	Tags	Hold By	Creator	Created
<input type="checkbox"/>	dev_sbnd_mcc_gen_test	Yes			mazzacan	2018-02-01 16:27:13
<input type="checkbox"/>	sbnd_mcc_gen_test	Yes			mengel	2018-02-08 13:56:31
<input type="checkbox"/>	sbnd_gen_test	Yes	mcc_test_1		mengel	2018-02-08 15:16:33
<input type="checkbox"/>	sbnd_anatree_poms_test2	Yes	mcc_test_2		mazzacan	2018-02-08 08:21:24
<input type="checkbox"/>	sbnd_reco_poms_test2	Yes	mcc_test_2		mazzacan	2018-02-08 08:19:42
<input type="checkbox"/>	sbnd_detsim_poms_test2	Yes	mcc_test_2		mazzacan	2018-02-08 08:18:34
<input type="checkbox"/>	sbnd_g4_poms_test2	Yes	mcc_test_2		mazzacan	2018-02-07 18:54:02
<input type="checkbox"/>	sbnd_gen_poms_test2	Yes	mcc_test_2		mazzacan	2018-02-01 22:18:02
<input type="checkbox"/>	sbnd_g4_test	Yes	mcc_test_1		mengel	2018-02-07 13:31:09
<input type="checkbox"/>	sbnd_anatree_test	Yes	mcc_test_1		mengel	2018-02-07 13:28:09
<input type="checkbox"/>	sbnd_detsim_test	Yes	mcc_test_1		mengel	2018-02-07 13:28:43
<input type="checkbox"/>	sbnd_reco_test	Yes	mcc_test_1		mengel	2018-02-07 13:30:14

Create POMS Campaign Stages – Run

https://pomsgpvm01.fnal.gov/ x Anna

Secure https://pomsgpvm01.fnal.gov/poms/show_campaigns

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Campaign Stages ?

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sbnd production

Mark Campaigns Active/Inactive Tag/Untag Campaigns Hold/Release Campaign Submission Show ALL Campaigns Statistics

Select All	Name	Active	Tags	Hold By	Creator	Created
<input type="checkbox"/>	dev_sbnd_mcc_gen_test	Yes			mazzacan	2018-02-01 16:27:13
<input type="checkbox"/>	sbnd_mcc_gen_test	Yes			mengel	2018-02-08 13:56:31
<input type="checkbox"/>	sbnd_gen_test	Yes	mcc_test_1		mengel	2018-02-08 15:16:33
<input type="checkbox"/>	sbnd_anatree_poms_test2	Yes	mcc_test_2		mazzacan	2018-02-08 08:21:24
<input type="checkbox"/>	sbnd_reco_poms_test2	Yes	mcc_test_2		mazzacan	2018-02-08 08:19:42
<input type="checkbox"/>	sbnd_detsim_poms_test2	Yes	mcc_test_2		mazzacan	2018-02-08 08:18:34
<input type="checkbox"/>	sbnd_g4_poms_test2	Yes	mcc_test_2		mazzacan	2018-02-07 18:54:02
<input type="checkbox"/>	sbnd_gen_poms_test2	Yes	mcc_test_2		mazzacan	2018-02-01 22:18:02
<input type="checkbox"/>	sbnd_g4_test	Yes	mcc_test_1		mengel	2018-02-07 13:31:09
<input type="checkbox"/>	sbnd_anatree_test	Yes	mcc_test_1		mengel	2018-02-07 13:28:09
<input type="checkbox"/>	sbnd_detsim_test	Yes	mcc_test_1		mengel	2018-02-07 13:28:43
<input type="checkbox"/>	sbnd_reco_test	Yes	mcc_test_1		mengel	2018-02-07 13:30:14

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Failed_By Exit Code and CPU Type (Last Day)

Campaign Stage Info ?

Campaign Stage sbnd_gen_test

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sbnd production

Total	Active Campaign Jobs			Jobs in 5.1 days ending 2018-02-13 23:37:35			Stats		
All ?	Idle ?	Running ?	Held ?	Total Completed ?	Not Located ?	Located ?	Removed ?	%Efficiency ?	Pending ?
70	0 ?	0	0	70	65	5	0	0	0

Reports/Status

[Job Efficiency Histogram \(1 month\)](#)
[Job Wall Clock Time Histogram \(1 month\)](#)
[Job CPU Time Histogram \(1 month\)](#)
[Copy In Time Histogram \(1 month\)](#)
[Job Copy Out Time Histogram](#)
[Day by Day Spreadsheet \(1wk\)](#)
[Submission Time Bars \(1wk\)](#)
[Campaign Submission Files](#)
[Kibana Usage Info for Campaign](#)

Actions

[Edit Campaign](#)
[Launch Campaign Jobs Now](#)
[Kill running/idle Jobs for Campaign](#)
[Hold running/idle Jobs for Campaign](#)
[Release held Jobs for Campaign](#)
[Schedule Future Job Launches](#)
[Mark Campaign Inactive](#)

Tags

Enter tag +

mcc_test_1

Campaign

Name: sbnd_gen_test
Experiment: sbnd
Dataset: None
Software Version: v06_48_00_MCC
VO Role: Production
Param Overrides: ['-Oglobal.fcfile=', 'prodgenie_nu_singleinteraction_cryostat_gsimple-config-v1.fc']
['-Osubmit.N=', '10']
['-Oexecutable.arg_5=', 'n15']
cs_split_type: None
cs_split_dimensions: None
cs_last_split: None Reset
Active: True
Created: 2018-02-08 15:16:33.375074-06:00
Creator: mengel
Updated: 2018-02-08 16:22:23.859766-06:00
Updater: mengel

Job Type

Name: sbnd_gen_fife_launch_test
Launch Script: fife_launch -c /sbnd/app/home/poms_test/cfg/sbnd_launch.cfg
Definition Parameters: ['-Oexecutable.arg_5=', '']
['-Ojob_output.add_to_dataset=', 'poms_task']
['-Oglobal.fcfile=', 'prodgenie_nu_singleinteraction_cryostat_gsimple-config-v1.fc']
Input Files Per Job: 0
Output Files Per Job: 0
Output File Patterns: %root
Creator: mazzacan
Created: 2018-02-01 16:09:49.042078-06:00
Updater: mazzacan
Updated: 2018-02-07 13:25:37.148102-06:00

Launch Template

Name: sbnd_launch_test_1
Experiment: sbnd
Launch Host: sbndgvm01.fnal.gov
Launch Account: sbndpro
Launch Setup: export X509_USER_PROXY=/opt/sbndpro/sbndpro.Production.proxy; setup fife_utils v3_2_0, poms_client , poms_jobsub_wrapper
Creator: mazzacan
Created: 2018-02-01 15:50:09.308688-06:00

dbweb01.fnal.gov/ECL/sbnd

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Failed_By Exit Code and Campaign Stage Name (Last Week)

Failed_By Exit Code and Node Name (Last Day)

Failed_By Exit Code and CPU Type (Last Day)

Campaign Stage Info ?

Campaign Stage sbnd_gen_test

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sbnd production

Total	Active Campaign Jobs			Jobs in 5.1 days ending 2018-02-13 23:37:35			Stats		
All ?	Idle ?	Running ?	Held ?	Total Completed ?	Not Located ?	Located ?	Removed ?	%Efficiency ?	Pending ?
70	0 ?	0	0	70	65	5	0	0	0

Reports/Status

[Job Efficiency Histogram \(1 month\)](#)
[Job Wall Clock Time Histogram \(1 month\)](#)
[Job CPU Time Histogram \(1 month\)](#)
[Copy In Time Histogram \(1 month\)](#)
[Job Copy Out Time Histogram](#)
[Day by Day Spreadsheet \(1wk\)](#)
[Submission Time Bars \(1wk\)](#)
[Campaign Submission Files](#)
[Kibana Usage Info for Campaign](#)

click

Actions

[Edit Campaign](#)
[Launch Campaign Jobs Now](#)
[Kill running/idle Jobs for Campaign](#)
[Hold running/idle Jobs for Campaign](#)
[Release held Jobs for Campaign](#)
[Schedule Future Job Launches](#)
[Mark Campaign Inactive](#)

Tags

Enter tag

+

mcc_test_1

Campaign

Name: sbnd_gen_test
Experiment: sbnd
Dataset: None
Software Version: v06_48_00_MCC
VO Role: Production
Param Overrides: ['-Oglobal.fcfile=', 'prodgenie_nu_singleinteraction_cryostat_gsimple-config-v1.fc']
['-Osubmit.N=', '10']
['-Oexecutable.arg_5=', 'n15']
cs_split_type: None
cs_split_dimensions: None
cs_last_split: None Reset
Active: True
Created: 2018-02-08 15:16:33.375074-06:00
Creator: mengel
Updated: 2018-02-08 16:22:23.859766-06:00
Updater: mengel

Job Type

Name: sbnd_gen_fife_launch_test
Launch Script: fife_launch -c /sbnd/app/home/poms_test/cfg/sbnd_launch.cfg
Definition Parameters: ['-Oexecutable.arg_5=', 'n15']
['-Ojob_output.add_to_dataset=', 'poms_task']
['-Oglobal.fcfile=', 'prodgenie_nu_singleinteraction_cryostat_gsimple-config-v1.fc']
Input Files Per Job: 0
Output Files Per Job: 0
Output File Patterns: %root
Creator: mazzacan
Created: 2018-02-01 16:09:49.042078-06:00
Updater: mazzacan
Updated: 2018-02-07 13:25:37.148102-06:00

Launch Template

Name: sbnd_launch_test_1
Experiment: sbnd
Launch Host: sbndgvm01.fnal.gov
Launch Account: sbndpro
Launch Setup: export X509_USER_PROXY=/opt/sbndpro/sbndpro.Production.proxy; setup fife_utils v3_2_0, poms_client, poms_jobsub_wrapper
Creator: mazzacan
Created: 2018-02-01 15:50:09.308688-06:00

dbweb0.fnal.gov/ECL/sbnd

Create POMS Campaign Stages – Schedule

POMS

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Compose Job Type

Compose Campaign Stages

Jobs

All (Last Day)

Failed_By Exit Code and Campaign Stage Name (Last Day)

Failed_By Exit Code and Campaign Stage Name (Last Week)

Failed_By Exit Code and Node Name (Last Day)

Failed_By Exit Code and CPU Type (Last Day)

Campaign Stage Info ?

Campaign Stage sbnd_gen_test

Anna Mazzacane

sbnd production

Total	Active Campaign Jobs			Jobs in 5.1 days ending 2018-02-13 23:37:35			Stats		
All ?	Idle ?	Running ?	Held ?	Total Completed ?	Not Located ?	Located ?	Removed ?	%Efficiency ?	Pending ?
70	0 ?	0	0	70	65	5	0	0	0

Reports/Status

[Job Efficiency Histogram \(1 month\)](#)
[Job Wall Clock Time Histogram \(1 month\)](#)
[Job CPU Time Histogram \(1 month\)](#)
[Copy In Time Histogram \(1 month\)](#)
[Job Copy Out Time Histogram](#)
[Day by Day Spreadsheet \(1wk\)](#)
[Submission Time Bars \(1wk\)](#)
[Campaign Submission Files](#)
[Kibana Usage Info for Campaign](#)

Actions

[Edit Campaign](#)
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[Kill running/idle Jobs for Campaign](#)
[Hold running/idle Jobs for Campaign](#)
[Release held Jobs for Campaign](#)
[Schedule Future Job Launches](#)
[Mark Campaign Inactive](#)

Tags

Enter tag +

mcc_test_1

Campaign

Name: sbnd_gen_test
Experiment: sbnd
Dataset: None
Software Version: v06_48_00_MCC
VO Role: Production
Param Overrides: ['-Oglobal.fcfile=', 'prodgenie_nu_singleinteraction_cryostat_gsimple-config-v1.fc']
['-Osubmit.N=', '10']
['-Oexecutable.arg_5=', 'n15']
cs_split_type: None
cs_split_dimensions: None
cs_last_split: None Reset
Active: True
Created: 2018-02-08 15:16:33.375074-06:00
Creator: mengel
Updated: 2018-02-08 16:22:23.859766-06:00
Updater: mengel

Job Type

Name: sbnd_gen_fife_launch_test
Launch Script: fife_launch -c /sbnd/app/home/poms_test/cfg/sbnd_launch.cfg
Definition Parameters: ['-Oexecutable.arg_5=', '1']
['-Ojob_output.add_to_dataset=', 'poms_task']
['-Oglobal.fcfile=', 'prodgenie_nu_singleinteraction_cryostat_gsimple-config-v1.fc']
Input Files Per Job: 0
Output Files Per Job: 0
Output File Patterns: %root
Creator: mazzacan
Created: 2018-02-01 16:09:49.042078-06:00
Updater: mazzacan
Updated: 2018-02-07 13:25:37.148102-06:00

Launch Template

Name: sbnd_launch_test_1
Experiment: sbnd
Launch Host: sbndgvm01.fnal.gov
Launch Account: sbndpro
Launch Setup: export X509_USER_PROXY=/opt/sbndpro/sbndpro.Production.proxy; setup fife_utils v3_2_0, poms_client, poms_jobsub_wrapper
Creator: mazzacan
Created: 2018-02-01 15:50:09.308688-06:00

click

dbweb01.fnal.gov/ECL/sbnd

Create POMS Campaign Stages – Schedule

Campaign Launch Schedule ?

Current Crontab Entry

```
10 0,2,4,6,8,10,12,14,16,18,20,22 * * * /home/poms/products/poms/current/cron/launcher --campaign_id=42 # POMS_CAMPAIGN_ID=42
```

Update Entry form

Minutes(s) of the hour:

Hour(s) of day:

Day(s) of week:

☒ Any ☐ Sunday ☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday ☐ Saturday

Day(s) of Month:

Submit

Delete

Fill

Create POMS Campaign Stages – Schedule

Campaign Launch Schedule ?

Current Crontab Entry

```
10 0,2,4,6,8,10,12,14,16,18,20,22 * * * /home/poms/products/poms/current/cron/launcher --campaign_id=42 # POMS_CAMPAIGN_ID=42
```

Update Entry form

Minutes(s) of the hour:

Hour(s) of day:

Day(s) of week:

☒ Any ☐ Sunday ☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday ☐ Saturday

Day(s) of Month:

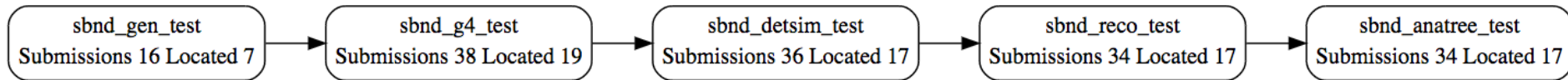
Submit

Delete



Workflow Example for SBND

- We successfully ran the following workflow for SBND



- Each stage of the workflow takes a SAM dataset input with the output files of the previous stage
- Each stage starts automatically when the previous one is finished

Workflow Example for SBND

https://pomsgpvm01.fnal.gov/ x Anna

Secure | https://pomsgpvm01.fnal.gov/poms/show_campaigns

Apps NCIS Unità Anticrimi... Colloquium "From P... Fermilab CASA Login Buddismo Giornali Auto Ricette Salute Film Tools CorsiOnline Marco Lavoro » Other Bookmarks

POMS: Campaign Stages

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Campaign Stages ?

Anna Mazzacane

sbnd production

Mark Campaigns Active/Inactive Tag/Untag Campaigns Hold/Release Campaign Submission Show ALL Campaigns Statistics

Select All	Name	Active	Tags	Hold By	Creator	Created
<input type="checkbox"/>			mcc_test_1			
<input type="checkbox"/>	sbnd_gen_test	Yes	mcc_test_1		mengel	2018-02-08 15:16:33
<input type="checkbox"/>	sbnd_g4_test	Yes	mcc_test_1		mengel	2018-02-07 13:31:09
<input type="checkbox"/>	sbnd_anatree_test	Yes	mcc_test_1		mengel	2018-02-07 13:28:09
<input type="checkbox"/>	sbnd_detsim_test	Yes	mcc_test_1		mengel	2018-02-07 13:28:43
<input type="checkbox"/>	sbnd_reco_test	Yes	mcc_test_1		mengel	2018-02-07 13:30:14



Workflow Example for SBND

Browser address bar: https://pomsgpvm01.fnal.gov/poms/show_tags

Page Title: POMS: Campaign Tags for

Left Sidebar:

- POMS
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- Calendar
- External Links
 - Sbnd Logbook
 - POMS ServiceNow Page
- Administration
 - Experiments
 - Users
 - Raw Tables
- Campaign Data
 - Tagged Campaigns
 - Campaign Stages
- Configure Work
 - Compose Launch Template
 - Compose Job Type
 - Compose Campaign Stages

Main Content:

Campaign Tags

Anna Mazzacane

sbnd production

Campaign Tags:

- mcc_test_1** [trash icon] [Dependencies] [Submissions]
- mcc_test_2** [trash icon] [Dependencies] [Submissions]

A hand icon with the word "click" is pointing to the "Dependencies" link for "mcc_test_2".

Workflow Example for SBND

https://pomsgpvm01.fnal.gov/ x

Secure | https://pomsgpvm01.fnal.gov/poms/campaign_deps?tag=mcc_test_1

Apps NCIS Unità Anticrimi... Colloquium "From P... Fermilab CASA Login Buddismo Giornali Auto Ricette Salute Film Tools CorsiOnLine Marco Lavoro Other Bookmarks

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Anna Mazzacane

Campaign Dependencies for Tag mcc_test_1

see dependencies

sbnd production

```
graph LR; sbnd_gen_test[sbnd_gen_test  
Submissions 16 Located 7] --> sbnd_g4_test[sbnd_g4_test  
Submissions 38 Located 19]; sbnd_g4_test --> sbnd_detsim_test[sbnd_detsim_test  
Submissions 36 Located 17]; sbnd_detsim_test --> sbnd_reco_test[sbnd_reco_test  
Submissions 34 Located 17]; sbnd_reco_test --> sbnd_anatree_test[sbnd_anatree_test  
Submissions 34 Located 17]
```

Workflow Example for SBND

The screenshot shows a web browser window with the URL https://pomsgpvm01.fnal.gov/poms/show_tags. The page title is "POMS: Campaign Tags for". The user is logged in as "Anna Mazzacane".

Left Sidebar:

- POMS** (with a share icon)
- Search...
- Calendar**
- External Links**
 - Sbnd Logbook
 - POMS ServiceNow Page
- Administration**
 - Experiments
 - Users
 - Raw Tables
- Campaign Data**
 - Tagged Campaigns
 - Campaign Stages
- Configure Work**
 - Compose Launch Template
 - Compose Job Type
 - Compose Campaign Stages

Main Content Area:

Campaign Tags

sbnd production

Campaign Tags:

- mcc_test_1** [trash icon] [Dependencies] [Submissions]
- mcc_test_2** [trash icon] [Dependencies] [Submissions]

A hand icon with the word "click" is pointing to the "Submissions" button for the "mcc_test_2" campaign tag.

Workflow Example for SBND

https://pomsgpvm01.fnal.gov/ x Anna

Secure | https://pomsgpvm01.fnal.gov/poms/campaign_time_bars?tag=mcc_test_1&tdays=7&tmax=

Apps NCIS Unità Anticrimi... Colloquium "From P... Fermilab CASA Login Buddismo Giornali Auto Ricette Salute Film Tools CorsiOnLine Marco Lavoro » Other Bookmarks

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Campaign mcc_test_1 Submissions ?

2018-02-07 08:57 to 2018-02-14 08:57

<previous 7.0 days | next 7.0 days >

sbnd production

Campaign sbnd_reco_test Job States

Total				Active				Completed In 7.0 days ending 2018-02-14 08:57				
All	Idle	Running	Held	Total	Completed	Not Located	Located	Removed	All	Idle	Running	Held
46	0	0	0	46		10	36	0				

Campaign sbnd_detsim_test Job States

Total				Active				Completed In 7.0 days ending 2018-02-14 08:57				
All	Idle	Running	Held	Total	Completed	Not Located	Located	Removed	All	Idle	Running	Held
64	0	0	0	64		14	50	0				

Campaign sbnd_anatree_test Job States

Total				Active				Completed In 7.0 days ending 2018-02-14 08:57				
All	Idle	Running	Held	Total	Completed	Not Located	Located	Removed	All	Idle	Running	Held
50	0	0	0	50		9	41	0				

Campaign sbnd_g4_test Job States

Total				Active				Completed In 7.0 days ending 2018-02-14 08:57				
All	Idle	Running	Held	Total	Completed	Not Located	Located	Removed	All	Idle	Running	Held
196	0	0	0	196		101	95	0				

Campaign sbnd_gen_test Job States

Total				Active				Completed In 7.0 days ending 2018-02-14 08:57				
All	Idle	Running	Held	Total	Completed	Not Located	Located	Removed	All	Idle	Running	Held
70	0	0	0	70		65	5	0				

Workflow Example for SBND

POMS Job Triage

Search...

Job Triage ?
triage your jobs

Anna Mazzacane

sbnd production

Job Triage:

Status	CPU Efficiency	Host Site	Node Name	CPU	Jobsub_Job_ID	Submission ID	Usr Exe Exit Code	Updated
✓ Completed	None	Wisconsin	e369.chtc.wisc.edu	GenuineIntel@4999	3877825.0@jobsub02.fnal.gov	41369	0	2018-02-09 14:55:16.829930-06:00

SAM Project

http://samweb.fnal.gov:8480/station_monitor/sbnd/stations/sbnd/projects/sbndpro-fife_wrap_20180209_145004_2979455

Logs

Refetch

Size Name

33172 fife_wrap

3344 fife_wrap_20180209_145004_2979455_1_1_cmd

8935 fife_wrap_20180209_145004_2979455_1_1_wrap.sh

3344 fife_wrap_20180209_145004_2979455_2_1_cmd

8935 fife_wrap_20180209_145004_2979455_2_1_wrap.sh

3344 fife_wrap_20180209_145004_2979455_3_1_cmd

8935 fife_wrap_20180209_145004_2979455_3_1_wrap.sh

3344 fife_wrap_20180209_145004_2979455_4_1_cmd

8935 fife_wrap_20180209_145004_2979455_4_1_wrap.sh

3344 fife_wrap_20180209_145004_2979455_5_1_cmd

8935 fife_wrap_20180209_145004_2979455_5_1_wrap.sh

3344 fife_wrap_20180209_145004_2979455_6_1_cmd

8935 fife_wrap_20180209_145004_2979455_6_1_wrap.sh

3344 fife_wrap_20180209_145004_2979455_7_1_cmd

8935 fife_wrap_20180209_145004_2979455_7_1_wrap.sh

3344 fife_wrap_20180209_145004_2979455_8_1_cmd

8935 fife_wrap_20180209_145004_2979455_8_1_wrap.sh

3344 fife_wrap_20180209_145004_2979455_9_1_cmd

8935 fife_wrap_20180209_145004_2979455_9_1_wrap.sh

3350 fife_wrap_20180209_145004_2979455_10_1_cmd

8936 fife_wrap_20180209_145004_2979455_10_1_wrap.sh

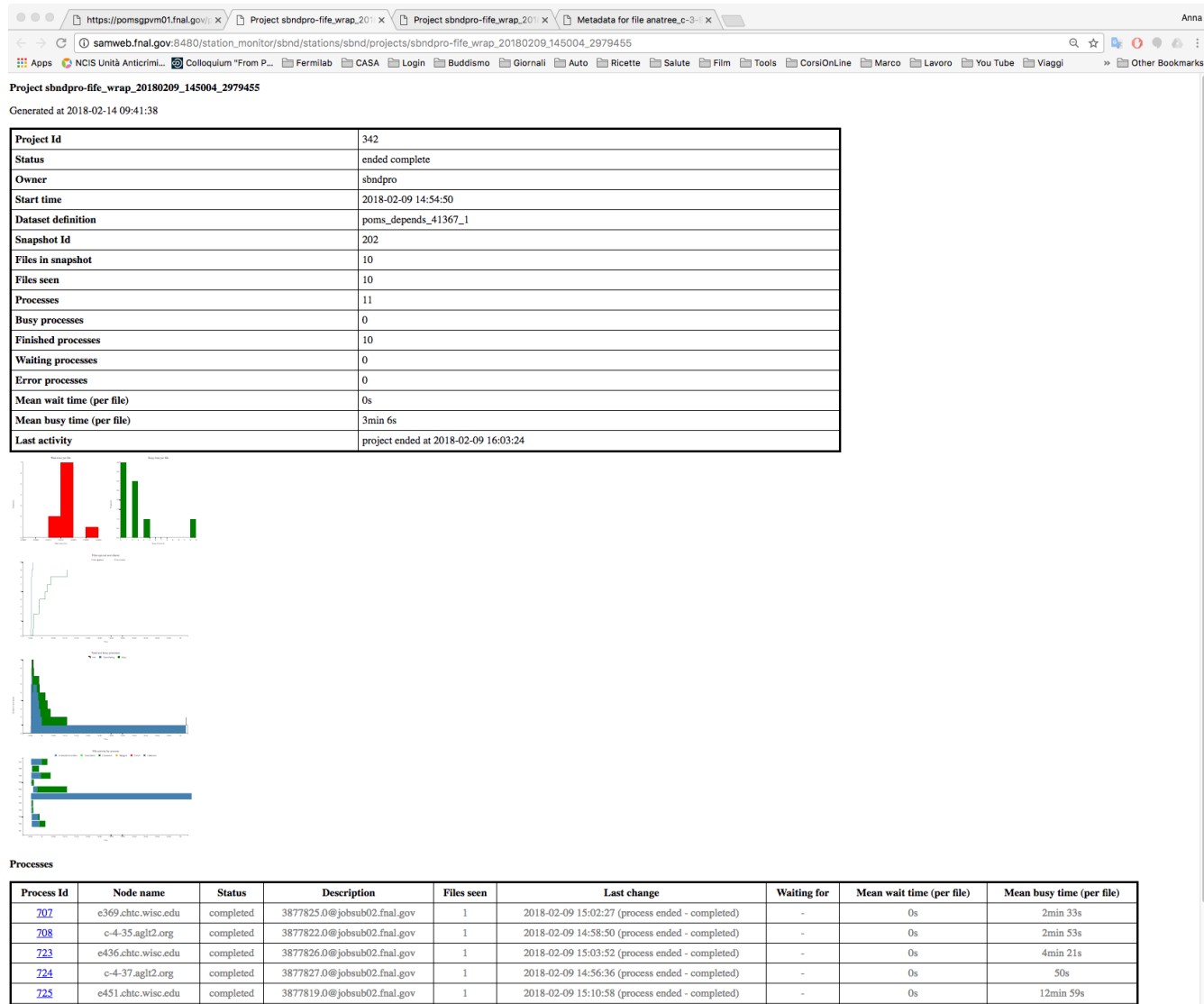
2917 fife_wrap_20180209_145004_2979455_1.dag

4356 fife_wrap_20180209_145004_2979455.sambegin.sh

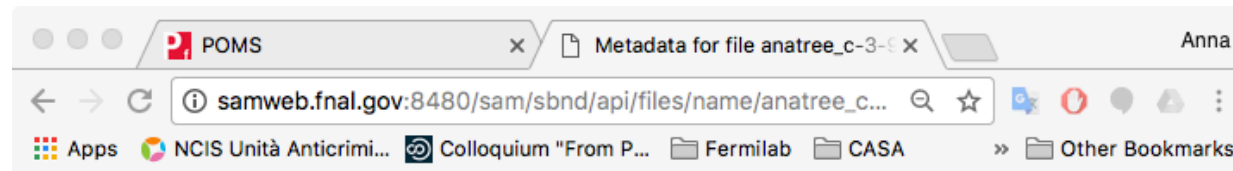
2675 fife_wrap_20180209_145004_2979455_1.dagbegin.cmd

20 fife_wrap_20180209_145004_2979455.dagend.sh

Workflow Example for SBND



Workflow Example for SBND



Metadata for anatreec-3-9.aglt2.org_1518209945_2174240_0.root

[Locations](#) [Ancestors](#) [Children](#) [Descendants](#) [Raw ancestors](#)

File Name:	anatreec-3-9.aglt2.org_1518209945_2174240_0.root
File Id:	5252
Create Date:	2018-02-09T20:59:16+00:00
User:	sbndpro
File Size:	2260158102
Checksum:	enstore:3249849218
Content Status:	good
File Type:	unknown
File Format:	artroot
Application:	demo demo v06_48_00_mcc
Event Count:	15
First Event:	1
Last Event:	15
Start Time:	2018-02-09T20:58:56+00:00
End Time:	2018-02-09T20:59:02+00:00
Parents:	reco_e449.chtc.wisc.edu_1518208556_14504_0.root

Found Issues and Solutions

Not Depending on POMS

➤ We had to solve the following issues that not depends on POMS:

- Missing library for the g4 stage like libXmu.so
Hooked them up with the NOvA cvmfs lib area.
Still saw failures in some offsite nodes, so ran the g4 stage onsite
Suggested solution: check which libraries you really need
- Art's "SAM metadata dumper" can generate metadata keys that aren't valid for SAM
Added code to filter them out.
Suggested solution: filter the “SAM compliant ones” and drop the rest

Get Help from POMS Team

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Jobs

All (Last Day)

Failed_By Exit Code and Campaign Stage Name (Last Day)

Failed_By Exit Code and Campaign Stage Name (Last Week)

Failed_By Exit Code and Node Name (Last Day)

Failed_By Exit Code and CPU Type (Last Day)

Dashboard ?

See everything up and running in real time

Services

Anna Mazzacane

sbnd production

Job launches: allowed Allow Hold

fifemon_DCache (0/2) ✓

fifemon_FifeBatch (0/2) ✓

fifemon_SAM (0/4) ✓

fndca_DCache (5/13) ✗

Key:

Good Component (0/total) ✓

Warn Component (num_failed/total) ⚠

Failed Component (num_failed/total) ✗

Unknown Component (0/total) ⓘ

Get Help from POMS Team

The screenshot shows the Fermilab Service Management portal. The browser address bar displays the URL: https://fermi.service-now.com/nav_to.do?uri=%2Fservice_offering.do%3Fsys_id%3D2deaa5b56f70520032544d1de3ee40c. The page title is "POMS | ServiceNow Service M...". The user is logged in as Anna Mazzacane.

Self-Service

- Homepage
- ▼ Ideas
 - Create New
 - My Ideas
 - All
- Self Service
 - Service Request Catalog
 - Core Computing Services
 - Scientific Computing Services
 - Scientific Services Outage Calendar

POMS

Overview:
POMS is a system for managing experiments production computing requests.

Description:
The Production Operations Management Service (POMS) will assist the production teams and the analysis groups of the experiments in their scientific computational work.
POMS provides a system that enables automated jobs submission on distributed resources according customers' requests and subsequent monitoring and recovery of failed submissions, debugging and record keeping.

- Deployment of the application and the database schema
- Running of the application.
- Make changes to accommodate experiments needs requests.

The customer is the de-facto Owner and Information Manager for the outputs of POMS.

Support Availability:
Weekdays, 8:00 am to 5:00 pm (excluding holidays)

Service Area:

Get Help

- [Ask a question about this service](#)
- [Report a service outage or incident](#)
- [Submit a request to service providers](#)
- [Give us feedback about this service](#)

More Information/Need Help?
Service Desk
Monday - Friday, 8-5
<https://fermi.service-now.com>
or 630.840.2345 or walk-ups (WHGF)

Existing Documentation

The screenshot shows a web browser window with multiple tabs. The active tab is titled 'Wiki - Production Operations Management Service (POMS)'. The address bar shows the URL 'https://cdcvns.fnal.gov/redmine/projects/prod_mgmt_db/wiki'. The browser's bookmark bar contains various links including 'Apps', 'NCIS Unità Anticrim...', 'Colloquium "From P...', 'Fermilab', 'CASA', 'Login', 'Buddismo', 'Giornali', 'Auto', 'Ricette', 'Salute', 'Film', 'Tools', 'CorsiOnline', 'Marco', 'Lavoro', and 'Other Bookmarks'. The page header includes navigation links: 'Home', 'My page', 'Projects', and 'Help'. It also shows the user is logged in as 'mazzacan' with links for 'My account' and 'Sign out'. The main title of the page is 'Production Operations Management Service (POMS)'. Below the title is a search bar and a dropdown menu currently set to 'Production Operations Management Service (POMS)'. A horizontal navigation bar contains links: 'Overview', 'Activity', 'Roadmap', 'Issues', 'New Issue', 'Gantt', 'Calendar', 'News', 'Documents', 'Wiki' (which is highlighted), 'Files', 'Repository', 'Code reviews', 'HTML', and 'Settings'. The main content area is titled 'What is POMS' and includes a list of actions: 'Edit', 'Watch', 'Lock', 'Rename', 'Delete', and 'History'. The text describes the POMS project, its goals, and its interfaces. A sidebar on the right is titled 'Wiki' and contains links for 'Start page', 'Index by title', and 'Index by date'. Below the main text, there are sections for 'Project Development Team & Mailing Lists' (listing team members and a mailing list), 'User Guide for POMS' (describing the web service interface and command-line tools), 'POMS Internals' (topics for developers), and 'Frequently Asked Questions' (with a note to email questions to poms_team@fnal.gov).

Home My page Projects Help

Production Operations Management Service (POMS)

Search: Production Operations Management Service (POMS)

Overview Activity Roadmap Issues New Issue Gantt Calendar News Documents **Wiki** Files Repository Code reviews HTML Settings

What is POMS

Edit Watch Lock Rename Delete History

The Production Operations Management System (POMS) is a project to design a service which assists production teams and analysis groups of experiments in their MC production and DATA processing. POMS provides a web service interface that enables automated jobs submission on distributed resources according customers' requests and subsequent monitoring and recovery of failed submissions, debugging and record keeping.

The system is interfaced to SAM data handling system to keep track of files and processing, the ECL to keep track of the production and processing operations and FIFEmon for monitoring. The ultimate goal is the most efficient utilization of all computing resources available to experiments, while providing a simple and transparent interface between users and the complexity of the grid.

We are currently working with several Intensity Frontier experiments to help them manage and track their MC production and DATA processing.

Project Development Team & Mailing Lists

- Anna Mazzacane
- Yuyi Guo
- Marc Mengel
- Margherita Vittone
- Steve White
- Vladimir Podstavkov

Team's mailing list : poms_team@fnal.gov

User Guide for POMS

POMS runs behind a web service interface that provides both interactive screens to users, and REST interfaces to scripts that interact with it. This means that experiments can use POMS through their web browser and configure and run their production code, or they can use the `poms_client` and `poms_jobsub_wrapper` tools to submit jobs through a command line and have POMS tracking, debugging and monitoring them.

The production instance of POMS is at <https://pomsgpvm01.fnal.gov/poms/>

If new to computing at Fermilab, please read: FIFE Wiki page Welcome New Computing Users

Users' mailing list : poms_announce@fnal.gov

POMS Internals

Topics for people developing POMS.

If you wish to be part of the team and/or contribute to develop new features for your experiment and/or have a great professional experience with skilled computing staff, please send an email to poms_team@fnal.gov.

Frequently Asked Questions

If you don't find your question here, please send an e-mail to poms_team@fnal.gov

New file

Wiki

- Start page
- Index by title
- Index by date

Thank You

Backup Slides



Managed by Fermi Research Alliance, LLC for the U.S. Department of Energy Office of Science

POMS project

Anna Mazzacane

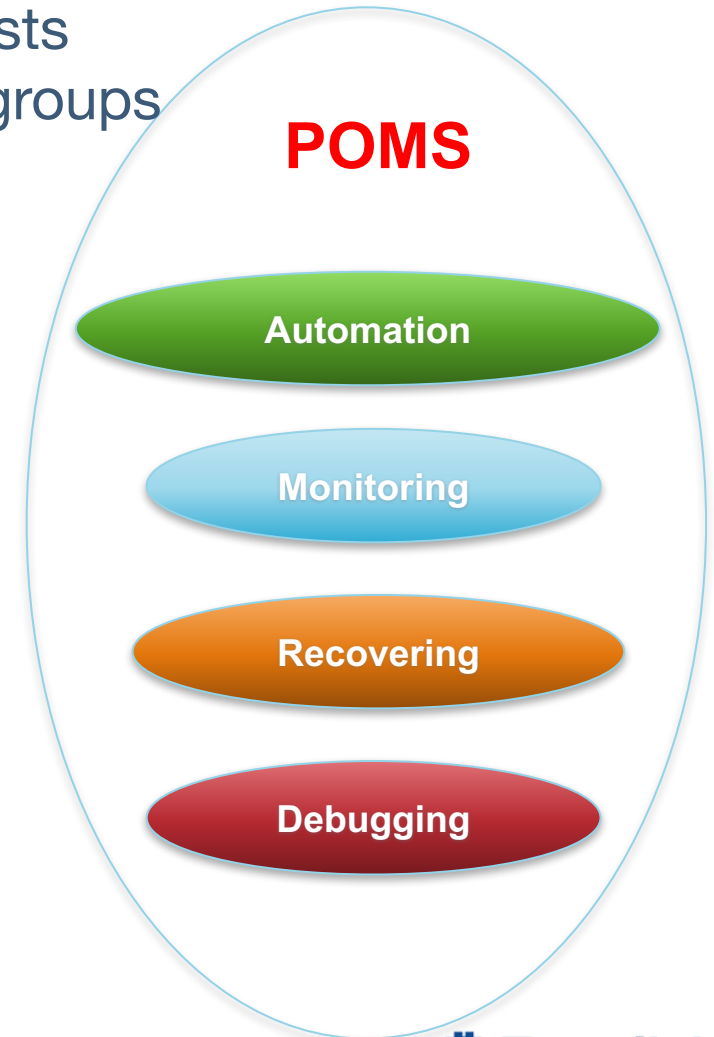
February 02, 2018

In these slides

- I will give an overview of POMS
- I will show some of the many features implemented in POMS

POMS

- **The Production Operations Management Service (POMS)** is a project to design a service which assists the production teams and the analysis groups of the experiments in their scientific computational work.
- POMS provides a web interface to:
 - Submit batch jobs
 - Monitor job submissions and files delivery
 - Recover failed jobs
 - Debug failures
 - Keep track of configurations used



What it is needed to use POMS

- The production instance of POMS is at <https://pomsgpvm01.fnal.gov/poms/>



Please enter your SERVICES user name and password.

Username

Password

Sign On

Fermilab [Disclaimer](#)

- Use services account to login
- Need an experiment affiliation and computing permissions to submit jobs

How To Interface To POMS

- First important step is how to translate the experimental workflow of a Monte Carlo production or DATA processing into POMS

Experimental Workflow – Set Of Stages/Steps

Event Generation

Physics
Interactions

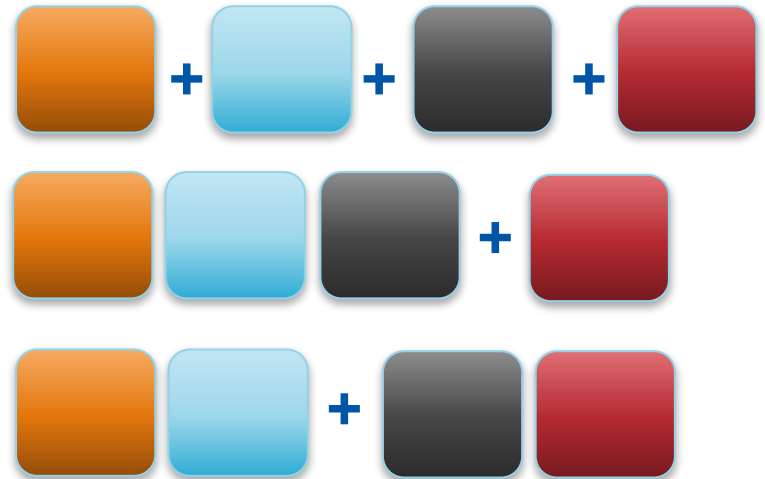
Detector
Response

Simulation

**MC
Production**

Event
Reconstruction

**Data
Processing**



Workflow variations

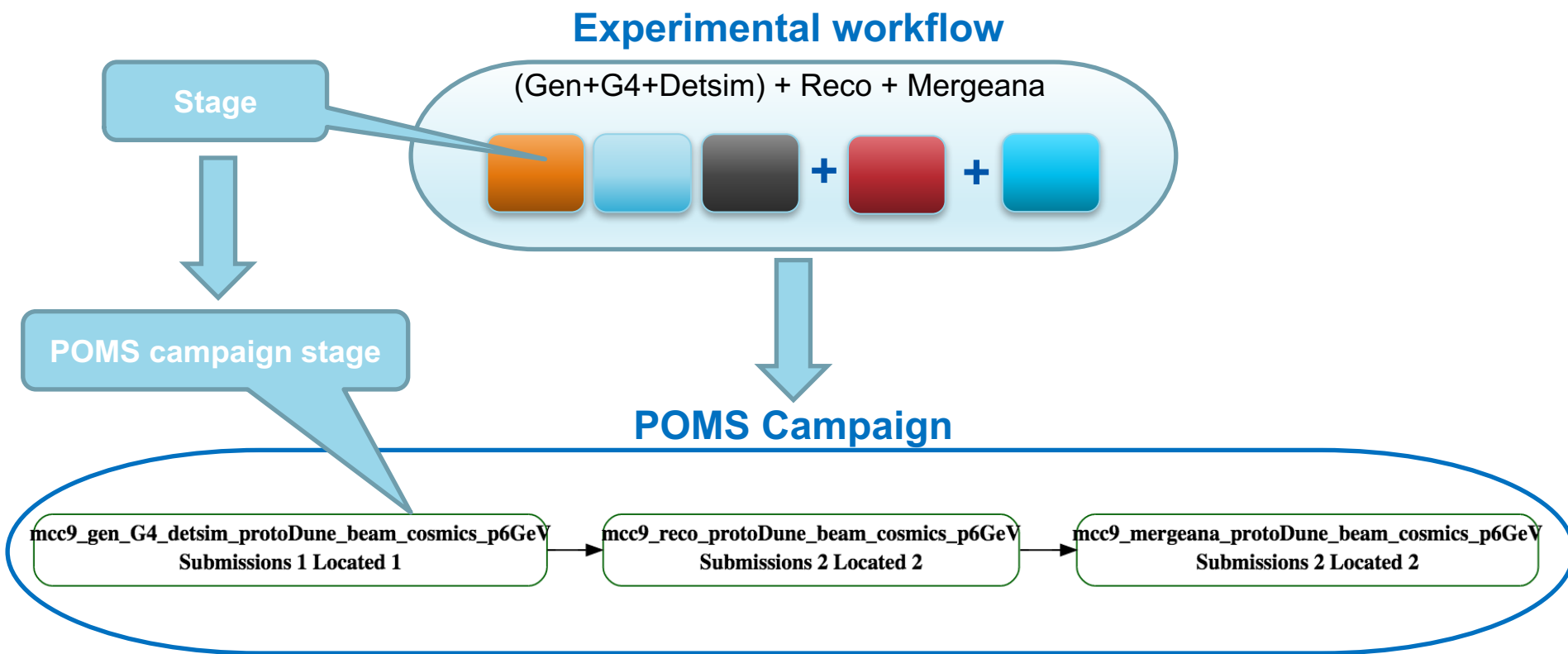
Example

(Gen+G4+Detsim) + Reco + Mergeana



Experimental Workflow into POMS

- Experimental workflow = POMS campaign
- A stage in the experimental workflow = POMS campaign stage



POMS Campaign Stages

Campaign Stages ?

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dune

production



Mark Campaigns Active/Inactive

Tag/untag Campaigns

Hold/Release Campaign Submission

Show ALL Campaigns Statistics

Select All <input type="checkbox"/>	Name	Active	Tags	Hold By	Creator	Created
	6GeV		dune_mcc9		mazzacan	
<input type="checkbox"/>	mcc9_reco_protoDune_beam_cosmics_p6GeV	No	dune_mcc9		mazzacan	2017-04-30 08:14:24
<input type="checkbox"/>	mcc9_gen_G4_detsim_protoDune_beam_cosmics_p6GeV	No	dune_mcc9		mazzacan	2017-04-30 08:13:44
<input type="checkbox"/>	mcc9_mergeana_protoDune_beam_cosmics_p6GeV	No	dune_mcc9		mazzacan	2017-04-30 08:15:05

POMS Campaign Stages Stats

Campaign Stages ?

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Select All	Name	Active	Tags	Hold By	Creator	Created
<input type="checkbox"/>	6GeV		dune_mcc9		mazzacane	
<input type="checkbox"/>	mcc9_reco_protoDune_beam_cosmics_p6GeV	No	dune_mcc9		mazzacane	2017-04-30 08:14:24
<input type="checkbox"/>	mcc9_gen_G4_detsim_protoDune_beam_cosmics_p6GeV	No	dune_mcc9		mazzacane	2017-04-30 08:13:44
<input type="checkbox"/>	mcc9_mergeana_protoDune_beam_cosmics_p6GeV	No	dune_mcc9		mazzacane	2017-04-30 08:15:05

Selected Campaign Stages ?

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					Jobs in 62.0 days ending 2017-06-30 00:00						
Campaign Stage ?		Total	Active Jobs			Completed			Stats		
Name		All	Idle ?	Running ?	Held ?	Total ?	Not Located ?	Located ?	Removed ?	%Efficiency ?	Pending ?
mcc9_mergeana_protoDune_beam_cosmics_p4GeV		206	0	0	0	206	0	206	0	64	0
mcc9_reco_protoDune_beam_cosmics_p4GeV		415	0	0	0	415	0	415	0	110	0
mcc9_gen_G4_detsim_protoDune_beam_cosmics_p4GeV		407	0	0	0	407	0	407	0	58	0

Campaign Stage Info

Campaign Stage Info ?

Campaign Stage mcc9_gen_G4_detsim_protoDune_beam_cosmics_p3GeV

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Total	Active Campaign Jobs			Jobs in 278.2 days ending 2018-02-02 06:24:29			Stats		
All ?	Idle ?	Running ?	Held ?	Total Completed ?	Not Located ?	Located ?	Removed ?	%Efficiency ?	Pending ?
405	0	0	0	405	0	405	0	63	0

Reports/Status

- Job Efficiency Histogram (1 month)
- Job Wall Clock Time Histogram (1 month)
- Job CPU Time Histogram (1 month)
- Copy In Time Histogram (1 month)
- Job Copy Out Time Histogram
- Day by Day Spreadsheet (1wk)
- Submission Time Bars (1wk)
- Campaign Submission Files
- Kibana Usage Info for Campaign

Actions

- Edit Campaign
- Launch Campaign Jobs Now
- Kill running/idle Jobs for Campaign
- Hold running/idle Jobs for Campaign
- Release held Jobs for Campaign
- Schedule Future Job Launches
- Mark Campaign Active

Tags

Enter tag

dune_mcc9

Campaign Stage Info (cont'd)

Campaign

Name: mcc9_gen_G4_detsim_protoDune_beam_cosmics_p3GeV

Experiment: dune


Dataset: none

Software Version: v06_33_00_01

VO Role: Production

cs_split_type: none

cs_split_dimensions: None

cs_last_split: None 

Active: False

Created: 2017-04-29 20:36:56.229675-05:00

Creator: mazzacan

Updated: None

Updater: mazzacan

Job Type

Name: mcc9_protodune_detsim_3GeV

Launch Script: /dune/app/home/dunepro/anna/MCC9/mcc9_SubmissionScriptNew.sh

Definition Parameters: [
['ProtoDUNE_beam_3GeV_cosmics_3ms.xml', '']
['detsim', '']]

Input Files Per Job: 0

Output Files Per Job: 0

Output File Patterns: %.root

Creator: mazzacan

Created: 2017-04-29 20:33:16.509874-05:00

Updater: mazzacan

Updated: None

Launch Template

Name: mcc9_protodune

Experiment: dune

Launch Host: dunegpvm01.fnal.gov

Launch Account: dunepro

Launch Setup: export X509_USER_PROXY=/opt/dunepro/dunepro.Production.proxy; source
/cvmfs/dune.opensciencegrid.org/products/dune/setup_dune.sh; setup dunetpc v06_33_00_01 -q e14:prof

Creator: mazzacan

Created: 2017-04-24 10:45:18.216718-05:00

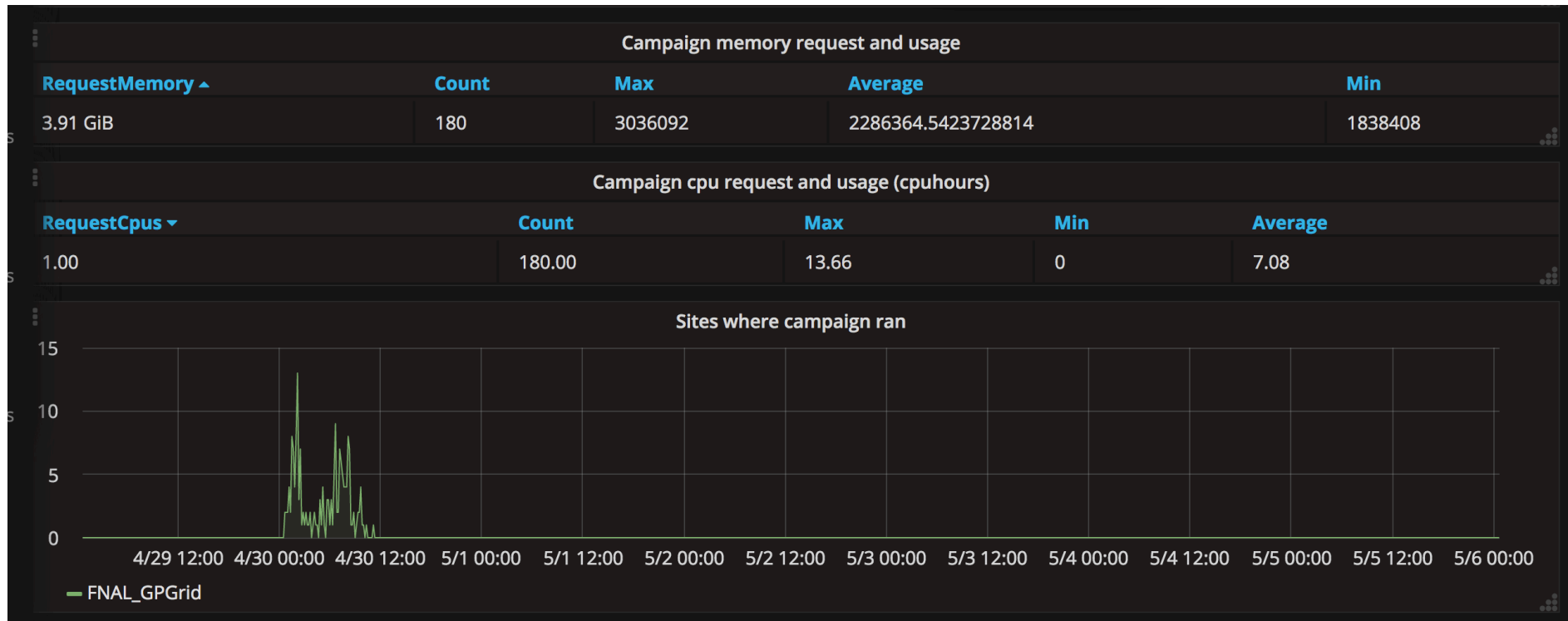
Updater: mazzacan

Updated: 2017-04-26 12:43:23.738891-05:00

GNU Image Manipul...

Fifemon Monitoring

➤ Campaign stage profiling



Troubleshooting

Jobs by node_name,user_exe_exit_code,name,experiment,count ?

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2017-04-29 00:00 to 2017-05-06 00:00

<previous 7.0 days | next 7.0 days >

dune

production



node_name x user_exe_exit_code x name x experiment x

Submit

node_name	user_exe_exit_code	name	experiment	count
fnpc9051.fnal.gov	1	mcc9_reco_protoDune_beam_cosmics_p3GeV_sce	dune	9
fnpc4101.fnal.gov	1	mcc9_reco_protoDune_beam_cosmics_p3GeV_sce	dune	8
fnpc8011.fnal.gov	1	mcc9_reco_protoDune_beam_cosmics_p3GeV_sce	dune	7
fnpc8017.fnal.gov	1	mcc9_reco_protoDune_beam_cosmics_p3GeV_sce	dune	6
fnpc7013.fnal.gov	139	mcc9_gen_G4_detsim_protoDune_beam_cosmics_p6GeV_sce	dune	1
fnpc7022.fnal.gov	1	mcc9_reco_protoDune_beam_cosmics_p5GeV_sce	dune	1
fnpc5013.fnal.gov	1	mcc9_reco_protoDune_beam_cosmics_p-1GeV	dune	1
fnpc6004.fnal.gov	1	mcc9_reco_protoDune_beam_cosmics_p1GeV_sce	dune	1
fnpc9019.fnal.gov	1	mcc9_reco_protoDune_beam_cosmics_p-1GeV	dune	1
fnpc8026.fnal.gov	1	mcc9_reco_protoDune_beam_cosmics_p5GeV_sce	dune	1
fnpc9054.fnal.gov	1	mcc9_reco_protoDune_beam_cosmics_p5GeV_sce	dune	1

Configure POMS

- Two configuration models implemented into POMS:
 - Through a submission script that takes all configurations needed for the job submission and data handling
 - Through a configuration file that takes all info needed for the job submission and data handling



Highly recommended

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SubmitTestTest

Schedule A Submission

Campaign Launch Schedule ?

Current Crontab Entry

```
10 0,2,4,6,8,10,12,14,16,18,20,22 * * * /home/poms/products/poms/current/cron/launcher --campaign_id=42 # POMS_CAMPAIGN_ID=42
```

Update Entry form

Minutes(s) of the hour:

Hour(s) of day:

Day(s) of week:

☒ Any ☐ Sunday ☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday ☐ Saturday

Day(s) of Month:

POMS Online Documentation

Job

An individual batch-system job, part of a given Task's job submission, which associated with a Campaign. POMS ignores jobs which are not part of a Campaign. Jobs are considered to be in one of 5 high level states:

- Idle -- The job is waiting to be scheduled somewhere by the batch system
- Running -- The job has been started by the batch system, and is still running
- Completed -- the job has finished running
- Held -- the batch system has stopped the job for some reason (using too much memory, etc)
- Located -- the job was not only completed, but its output files have locations in the data handling system.

where the first 4 are the usual states are defined by Condor, and the fifth is peculiar to POMS. Within the Running state, there may be more details logged; i.e. "Running: running user executable", "Running: copying in files", etc. where these can be determined from the ifdh joblogs.

Service

A system that we depend on to run jobs, whose status is in some way determinable.

Job Type

(Task Definition/Campaign (layer) Definition)

All the info you need to run a particular category of job -- i.e. "how do I launch a NOvA montecarlo job" or "how do I launch a Minerva calibration keepup job". This is filled in with information from a given Campaign to know how to run a submit a given Task.

Submission

(Task)

A specific multi-job launch. It has a specific command line used to launch it, and it may have output files for whose appearance we await in the data handling system before we declare the task complete. It has states defined in terms of the jobs it generates as follows:

- Idle -- all of its jobs are Idle
- Running -- one or more of its jobs are Running
- Completed -- all of its jobs are Completed or Declared
- Located -- all of its jobs are Located

If another Submission in (another Campaign Layer) needs the output of this one to be launched, it must wait for this task to be in state "Located" before launching; or if the Submissions are generated with a Draining dataset definition, one waits for the previous task for this Campaign to complete before launching another.

References

POMS redmine project:

<https://cdcv.s.fnal.gov/redmine/projects/poms/>

POMS team mailing list:

poms_team@fnal.gov

POMS production instance of POMS:

<https://pomsgpvm01.fnal.gov/poms/>

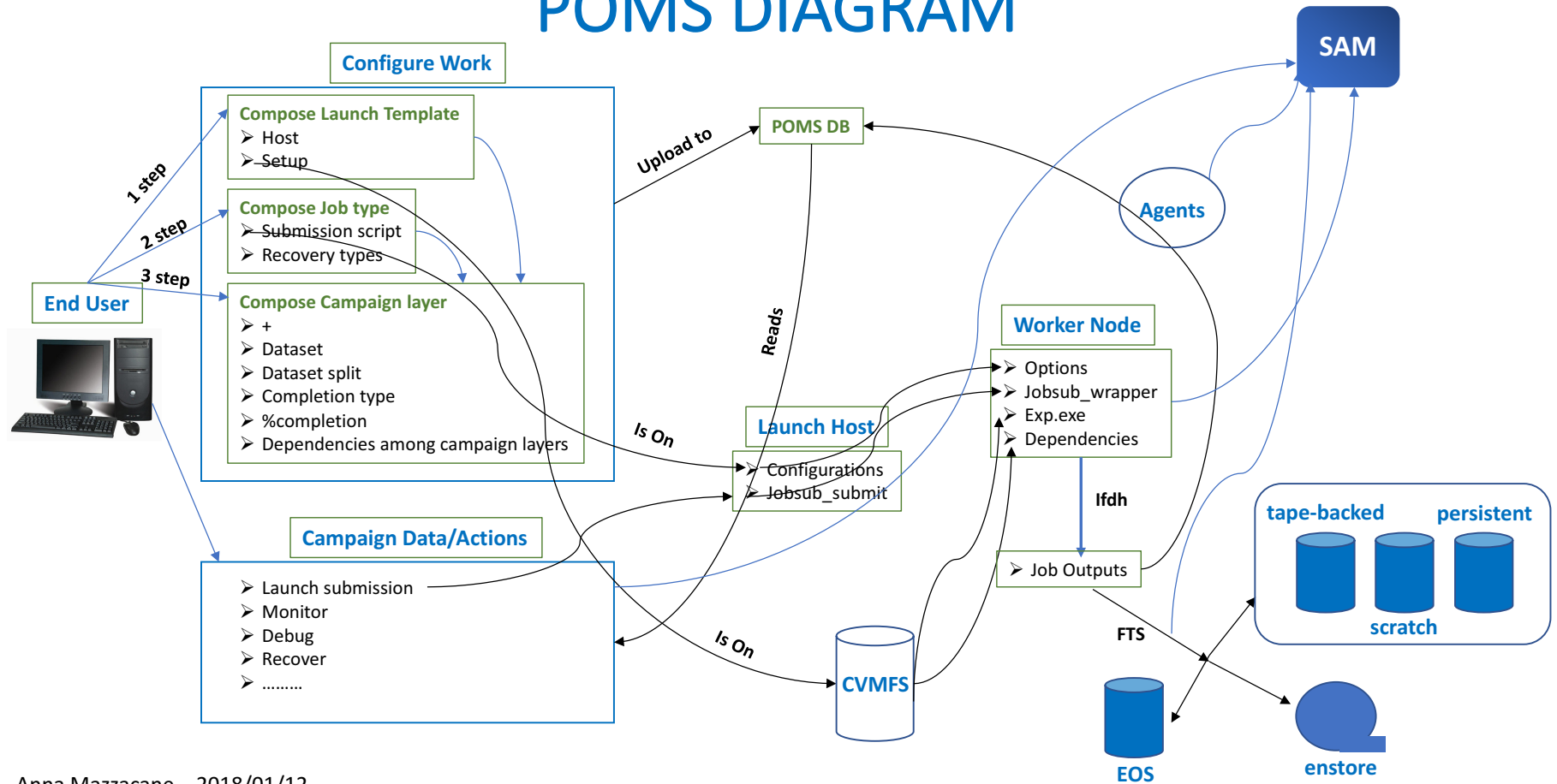
Marc Mengel's presentation at FIFE workshop 2016:

<https://indico.fnal.gov/getFile.py/access?contribId=8&resId=0&materialId=slides&confId=12120>

Thank You

Backup Slides

POMS DIAGRAM



Anna Mazzacane – 2018/01/12